

Part 1 - Amendments to Claims

1. (Presently Amended) A method of capturing a negative impression of an anatomical portion of a person, comprising:

selecting a piece of impression foam having a crush resistance characteristic of substantially constant crushing force per unit area over a
5 predetermined range of collapse distances;

forcing the anatomical portion into the piece of impression foam to create the negative impression by collapsing the impression foam; and

collapsing the impression foam only within the predetermined range of collapse distances within which the crushing force per unit area is substantially
10 constant while creating the negative impression.

2. (Presently Amended) A method as defined in claim 1, further comprising:

selecting the impression foam to have the crush resistance characteristic in which the predetermined range of collapse distances is at least
5 80% of an initial thickness of the piece of non-collapsed impression foam.

3. (Canceled)

4. (Presently Amended) A method as defined in claim 3, further comprising:

selecting the piece of impression foam to have the crush resistance characteristic in which the constant crushing force per unit area is within the range
5 of 1.50 to 1.85 pounds per square inch.

5. (Presently Amended) A method as defined in claim 1, further comprising:

selecting the piece of impression foam to have the crush resistance characteristic in which the constant crushing force per unit area is within the range
5 of 1.50 to 1.85 pounds per square inch.

6. (Presently Amended) A method as defined in claim 5, further comprising:

selecting the piece of impression foam to have the crush resistance characteristic in which the constant crushing force per unit area is approximately
5 1.56 pounds per square inch.

7. (Presently Amended) A method as defined in claim 5, further comprising:

selecting the piece of impression foam to have the crush resistance characteristic of a relative lack of structural shear force resistance to cause the
5 impression foam to collapse into the negative impression in a form which substantially exactly complements the anatomical portion.

8. (Previously Presented) A method as defined in claim 5, further comprising:

selecting the piece of impression foam to have the crush resistance characteristic of a relative lack of structural shear force resistance to cause the
5 impression foam to collapse into the negative impression in a form which is substantially free of displacement or deformation at edges of the negative impression relative to the shape of the anatomical portion.

9. (Previously Presented) A method as defined in claim 1, further comprising:

selecting an initial thickness of the piece of non-collapsed impression foam to result in collapsing the impression foam by no more than 90% of the initial
5 thickness at any location on the negative impression.

10. (Previously Presented) A method as defined in claim 1, further comprising:

seating or reclining the person on the impression foam to force the anatomical portion into the piece of impression foam.

11. (Previously Presented) A method as defined in claim 10, further comprising:

forcing the anatomical portion into the piece of impression foam from weight of the person.

12. (Previously Presented) A method as defined in claim 1, used for creating a support contour for a seat cushion by which to support pelvic and proximal thigh anatomical portions of the person while sitting, further comprising:
forcing the anatomical portions into the piece of impression foam to
5 obtain the negative impression from anatomical portions which will be supported on the support contour.

13. (Presently Amended) A method as defined in claim 12, further comprising:
selecting an initial thickness of the piece of impression foam which will collapse within the predetermined range of collapse distances to obtain the
5 negative impression of the anatomical portions which will be supported on the support contour; and

collapsing the impression foam within the predetermined range of ~~collapse~~ ~~crush~~ distances at every location of the negative impression of the anatomical portions which will be supported on the support contour.

14.-15. (Canceled)

16. (Previously Presented) A method as defined in claim 12, further comprising:

sitting the person on the piece of impression foam to force the anatomical portions into the impression foam.

17. (Canceled)

18. (Previously Presented) A method as defined in claim 16, further comprising:

forcing the anatomical portions into the piece of impression foam by applying force to the person beyond the weight of the person.

19. (Previously Presented) A method as defined in claim 16, further comprising:

moving the person through a range of movement while the person is sitting on the piece of impression foam.

20. (Previously Presented) A method as defined in claim 19, used for creating a seat cushion for a wheelchair having a seat support structure for supporting the person while seated on the seat cushion.

21. (Previously Presented) A method as defined in claim 20, further comprising:

positioning the piece of impression foam on the seat support structure of the wheelchair; and

5 sitting the person on the piece of impression foam positioned on the seat support structure.

22. (Previously Presented) A method as defined in claim 21, further comprising:

maneuvering the wheelchair from actions of the person sitting on the piece of impression foam on the seat support structure.

23. (Previously Presented) A method as defined in claim 21, further comprising:

moving the person through a range of normal movement while sitting on the piece of impression foam.

24. (Original) A method as defined in claim 23, further comprising:
establishing the range of normal movement to encompass the types of movement performed by the person when sitting on the seat cushion during typical use of the wheelchair.

25. (Previously Presented) A method as defined in claim 21, further comprising:

collapsing the impression foam by moving the person through a range of movement to an extent that the negative impression created encompasses
5 changes in position of the anatomical portions of the person when sitting on the seat cushion during typical use of the wheelchair.

26. (Previously Presented) A method as defined in claim 16, further comprising:

- removing the person from sitting on the piece of impression foam; and
using the negative impression as a mold to create a positive mold
5 configuration of the anatomical portions; and
using the positive mold configuration to create the support contour for
the seat cushion.

27. (Original) A method as defined in claim 26, further comprising:
further collapsing the impression foam at selected relief areas of the
negative impression to create an adjusted negative impression.

28. (Previously Presented) A method as defined in claim 27, further
comprising:

- locating the selected relief areas to obtain further clearance from the
support contour at the location of at the ischial tuberosities, greater trochanters, and
5 coccyx and sacrum of the person.

29. (Original) A method as defined in claim 28, further comprising:
establishing the extent of further clearance at the relief areas by the
extent of further collapsing the impression foam at the relief areas.

30. (Previously Presented) A method as defined in claim 28, further
comprising:

using the adjusted negative impression as a mold to create the
positive mold configuration of the anatomical portions.

31. (Previously Presented) A method as defined in claim 30, further
comprising:

molding the support contour of the seat cushion from the positive
mold configuration.

32. (Original) A method as defined in claim 31, further comprising:
molding the seat cushion from fused together resilient plastic beads.

33. (Original) A method as defined in claim 32, further comprising:

fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the seat cushion.

34. (Presently Amended) A method for creating a support contour for a seat cushion by which to support pelvic and proximal thigh anatomical portions of the person while sitting, comprising:

5 selecting impression foam having a crush resistance characteristic of substantially constant crushing force per unit area over a predetermined range of collapse distances;

10 sitting the person on the impression foam to force the anatomical portions which will be supported on the support contour into the impression foam to create a negative impression by collapsing the impression foam to an extent which falls within the predetermined range of collapse ~~crush~~ distances at every location of the negative impression contacted by the anatomical portions which will be supported on the support contour;

removing the person from sitting on the impression foam after collapsing the impression foam;

15 further collapsing the impression foam at selected relief areas of the negative impression to create an adjusted negative impression;

locating the selected relief areas to obtain further clearance from the support contour at the location of at least one of the ischial tuberosities, greater trochanters, coccyx and sacrum, and the perineal area of the person;

20 using the negative impression as a mold to create a positive mold configuration of the anatomical portions; and

removing material from the positive mold configuration at selected support areas to create an adjusted positive mold configuration.

35. (Original) A method as defined in claim 34, further comprising:

locating the selected support areas to obtain further protuberance from the support contour at the location of at least one of the lateral posterior buttocks or the proximal thighs of the person.

36. (Original) A method as defined in claim 35, further comprising:
establishing the extent of further protuberance at the support areas by the extent of removing material from the positive mold at the support areas.

37. (Previously Presented) A method as defined in claim 36, further comprising:

5 using the adjusted positive mold configuration mold to define the support contour for the selected portion of the anatomical portions to be supported by the support contour; and

molding the support contour of the seat cushion from the adjusted positive mold configuration.

38. (Original) A method as defined in claim 37, further comprising:
molding the seat cushion from fused together resilient plastic beads.

39. (Original) A method as defined in claim 38, further comprising:
fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the seat cushion.

40. (Presently Amended) A method for creating a support contour for a seat cushion by which to support pelvic and proximal thigh anatomical portions of the person while sitting, comprising:

5 selecting impression foam having a crush resistance characteristic of substantially constant crushing force per unit area over a predetermined range of collapse distances;

sitting the person on the impression foam to force the anatomical portions which will be supported on the support contour into the impression foam to create a negative impression by collapsing the impression foam to an extent which
10 falls within the predetermined range of collapse ~~crush~~ distances at every location of

the negative impression contacted by the anatomical portions which will be supported on the support contour;

removing the person from sitting on the impression foam after collapsing the impression foam;

15 using the negative impression as a mold to create a positive mold configuration of the anatomical portions; and

removing material from the positive mold configuration at selected support areas which will be part of the support contour to create an adjusted positive mold configuration.

41. (Original) A method as defined in claim 40, further comprising:
locating the selected support areas to obtain further protuberance from the support contour at the location of at least one of the lateral posterior buttocks or the proximal thighs of the person.

42. (Original) A method as defined in claim 41, further comprising:
establishing the extent of further protuberance at the support areas by the extent of removing material from the positive mold at the support areas.

43. (Previously Presented) A method as defined in claim 41, further comprising:
using the adjusted positive mold configuration mold to define the support contour for the anatomical portions to be supported by the support contour;
5 and

molding the support contour of the seat cushion from the positive mold configuration.

44. (Original) A method as defined in claim 43, further comprising:
molding the seat cushion from fused together resilient plastic beads.

45. (Original) A method as defined in claim 44, further comprising:
fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the seat cushion.

46. (Previously Presented) A method as defined in claim 26, further comprising:

molding the support contour of the seat cushion from the positive mold configuration.

47. (Original) A method as defined in claim 46, further comprising:

molding the seat cushion from fused together resilient plastic beads.

48. (Original) A method as defined in claim 47, further comprising:

fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the seat cushion.

49. (Previously Presented) A method as defined in claim 16, used for creating a seat cushion for a wheelchair having a support contour for supporting the cushion, further comprising:

5 positioning the piece of impression foam on the seat support structure of the wheelchair; and

sitting the person on the piece of impression foam positioned on the seat support structure.

50. (Previously Presented) A method as defined in claim 16, used for creating a seat cushion for a wheelchair having a shell seat for supporting the cushion and the person within the shell seat, further comprising:

5 positioning the piece of impression foam in the shell seat; and
sitting the person on the piece of impression foam positioned in the shell seat.

51. (Previously Presented) A method as defined in claim 16, used for creating a seat cushion for a wheelchair having support contour for supporting the cushion, further comprising:

5 positioning the piece of impression foam on a seating simulator; and
sitting the person on the piece of impression foam positioned on the seating simulator.

52. (Previously Presented) A method as defined in claim 16, used for creating a seat cushion for a wheelchair having a support contour for supporting the cushion, further comprising:

positioning the piece of impression foam within a container to protect
5 the impression foam from inadvertent collapse;

transporting the piece of impression foam within the container to the location of the person;

obtaining the negative impression from the person in the piece of impression foam at the location of the person;

10 transporting the piece of impression foam containing the negative impression within the container to a fabrication location which is substantially remote from the person; and

fabricating the seat cushion at the fabrication location with at least a portion of the support contour derived from a mold obtained from the negative
15 impression.

53. (Previously Presented) A method as defined in claim 52, further comprising:

protecting the negative impression created in the piece of impression foam from inadvertent collapse while transporting the piece of impression foam
5 containing the negative impression from the location of the person to the fabrication location.

54. (Previously Presented) A method as defined in claim 53, further comprising:

transporting by mail the piece of impression foam containing the negative impression from the location of the person to the fabrication location.

55. (Previously Presented) A method as defined in claim 1, further comprising:

positioning the piece of impression foam within a container having sides which surround the impression foam at locations other than which the negative impression is formed.

56. (Canceled)

57. (Presently Amended) A method of fabricating a seat cushion having a support contour for supporting a person at pelvic and proximal thigh anatomical portions of the person, comprising:

capturing a negative impression of the pelvic and proximal thigh anatomical portions;

creating a positive mold configuration of the anatomical portions using the captured negative impression; ~~[[and]]~~

fusing together a plurality of resilient plastic beads into a support structure which encompasses at least a portion of the positive mold configuration to define the support contour for the seat cushion; ~~and cushion~~.

fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the support structure.

58.-64. (Canceled)

65. (Presently Amended) A method of fabricating a cushion having a support structure for supporting a person in a wheelchair, comprising:

utilizing a matrix of resilient fused-together plastic beads as the support structure, the plastic beads in the matrix being fused together at contact points which permit spaces between the beads to establish air ventilation permeability within the matrix;

shaping a human-interface side into the matrix of resilient fused-together plastic beads, the human-interface side defining a support contour which contacts the person; and

configuring another side of the matrix of resilient fused-together plastic beads to contact the wheelchair.

66. (Previously Presented) A method as defined in claim 65, further comprising:

fusing together the plastic beads into the matrix to form the support structure; and

5 molding the plastic beads of the matrix into the human-interface side simultaneously with fusing together the plastic beads into the matrix.

67. (Previously Presented) A method as defined in claim 66, further comprising:

utilizing plastic beads having different resilient characteristics in different portions of the support structure when fusing together the matrix of plastic beads to form the support structure.

68. (Previously Presented) A method as defined in claim 67, further comprising:

locating plastic beads having relatively greater resilient characteristics in a portion of the support structure adjacent to the human-interface side; and

5 locating plastic beads having relatively lesser resilient characteristics in a portion of the support structure adjacent to the wheelchair-interface side.

69.-76. (Canceled)

77. (Previously Presented) A method as defined in claim 30, further comprising:

removing material from the positive mold configuration at selected support areas to create an adjusted positive mold configuration; and

5 locating the selected support areas to obtain further protuberance from the support contour at the location of the lateral posterior buttocks and the proximal thighs of the person.

78. (Previously Presented) A method as defined in claim 77, further comprising:

molding the support contour of the seat cushion from the adjusted positive mold configuration.

79. (Previously Presented) A method as defined in claim 78, further comprising:

molding the seat cushion from fused together resilient plastic beads.

80. (Previously Presented) A method as defined in claim 79, further comprising:

fusing the resilient plastic beads together at contact points which permit spaces between the beads to establish air ventilation permeability within the seat cushion.

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81. (Presently Amended) A method is defined in claim 57, further comprising:

capturing the negative impression by forcing the anatomical portions into a piece of impression foam to create the negative impression by collapsing the impression foam, the impression foam having a crush resistance characteristic of substantially constant crushing force per unit area over a predetermined range of collapse distances; and

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collapsing the impression foam only within the predetermined range of collapse distances within which the crushing force per unit area is constant.

82. (Canceled)